Leader in Electrics & Automation

Digital Electricity Meter

LD/LGRW Series

Electric Equipment

LS Industrial Systems
www.lsis.biz

LS Industrial system digital watt hour meter

The best technique of LS realize the substitution of electronic meter generation.

<LD Series>

<LGRW Series>

◉ High reliabile CPU

The CPU of watt hour meter is same as humans brain. LS industrial system selects the world best CPU.

◉ Fully Made In Korea

LS industrial system is only made in Korea. LS power meter is not OEM, SKD product from china or South east Asia.

◉ Maximum 60mm2 cable connection (LD series)

It's possible to connect 60mm2 cable, so that heating damage probability will be reduced. (120A)

◉ Large LCD

It is very easy to check inspection value due to the large LCD.

◉ Current detection by CT method

Better insulation and inner surge characteristic can get more reliability.

◉ Inspection data storage

LS industrial system's watt hour meter can store forever, because there is non-flash memory inside.

◉ Compact size, high accuracy realization

Although the size minimize more 58% than static meter, accuracy is more 2 times than static one.

LS Digital W-meter increases space application by minimizing size, has various types and reliability by easy maintenance.

◉ Various model

It's possible to do remote inspection by various standard, pulse output, remote inspection type. Especially, remote inspection product is composed of communication module. So it's possible to do remote inspection gas, water, heating water, thermal capacity, air conditioning facility meter.

◉ Left/right product conversion (LD series)

It's possible to use as one product without difference of Left/Right type. It can be used without concerning power supply direction.

◉ Best A/S

LSIS always provides best A/S to our customer, we make the customer

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LD Series

Compact size

It is easy to install and increase space usage between cabinet panel and power meter panel because of the minimizing size.

Mechanic power meter

<Front view>

<Side view>

Electronic power meter

<Front view>

<Side view>

<mm, kg>

Type		Mechanic	Electronic	Minimizing
Dimension	W	130	66	49%
	H	159	130	18%
	D	155	65	58%
Weight		1.1	0.4	64%

Note) Single phase 40A standard.

1.0% accuracy

It is possible to do more accurate inspection because of the 2times increasing of accuracy comparing with static power meter within error range 1%.

Mechanic power meter

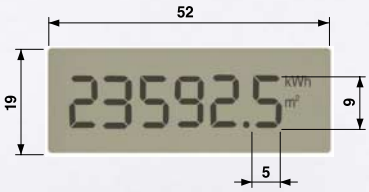
Mechanic
power meter
2.0 class
error rate ±2.0%

Electronic power meter

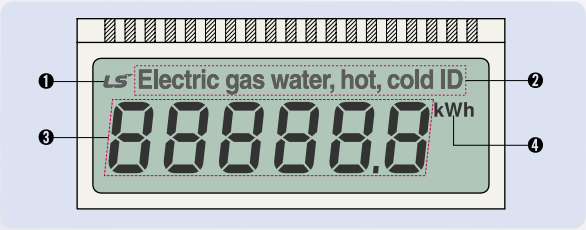
Electronic
power meter
1.0 class
error rate ±1.0%

Large LCD

It' s easy to see the inspection value and operating condition by large LCD.



- LCD : 19 × 52mm
- Number size : 9 × 5mm
- Indication : 6digit



It represent total power consumption the range of 00000.0~99999.9(kWH)
And cumulative watt hour came back to "0" after rotating onetime.

■ Explanation of indication

❶ **Normal operation condition :**
Blinking time is changed in proportion to using load current.

❷ **Type of metering :**
It activates from left side.

❸ **Cumulating forward active power consumption :**
Indication to first digit

❹ **The unit of metering :**
electricity(kWh) water/ hot water/heating(l/h) gas(m3/h)

Various model

It can be installed easily because of the various type(Up/Down, Left/right type).

1P2W Up/Down type

1P2WLeft/Right type

3P4W Up/Down type

3P4W Left/Right type

LGRW Series

Compact size, easy installation

Front view

<Static watt hour meter>

<Electronic watt hour meter>

Side view

<Static watt hour meter>

<Electronic watt hour meter>

High accuracy

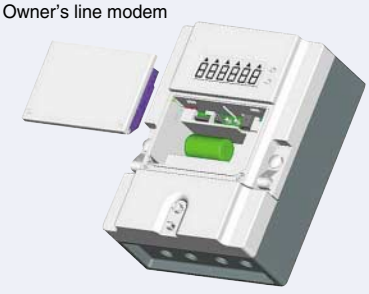
- Accuracy within ± 1%(1 class)
- 2 times accurate than static type

Adjustable modem(High reliability)

- Communication modem is adjustable on the external side.
  There is no problem measurement function.
- In case of communication problem, it can be changed only modem.

Electronic watt hour meter

Owner's line modem



Easy to inspect for large LCD

- Large number unit
- 6 digit
- Dimension of number : 5.5 x 10mm(Width x Height)

Increasing external output pulse value

- Due to increasing the pulse/kwh, it can be real time monitoring.

※ External output pulse value is per 1kWh, as this value is high, watt hour consumption can be measured accurately.

Unit type	External output pulse value
40A	1000 pulse/kWh
80A	500 pulse/kWh
120A	330 pulse/kWh

Data storage by inner battery (Remote inspection type, multi function type)

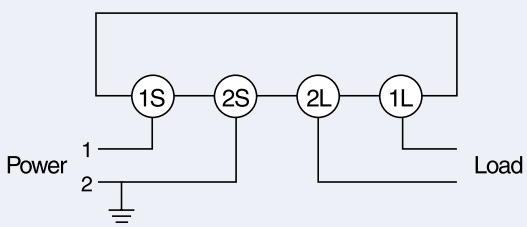
- Data storage and inspection by Inner Power off compensation battery. (No needed external power for compensation)

※ No need separate external power supply for short time power stopping compensation.

- Battery life : 10 years

- It' s easy to change the battery.

aTerminal arrangement and contact method



Application

Remote inspection of meters

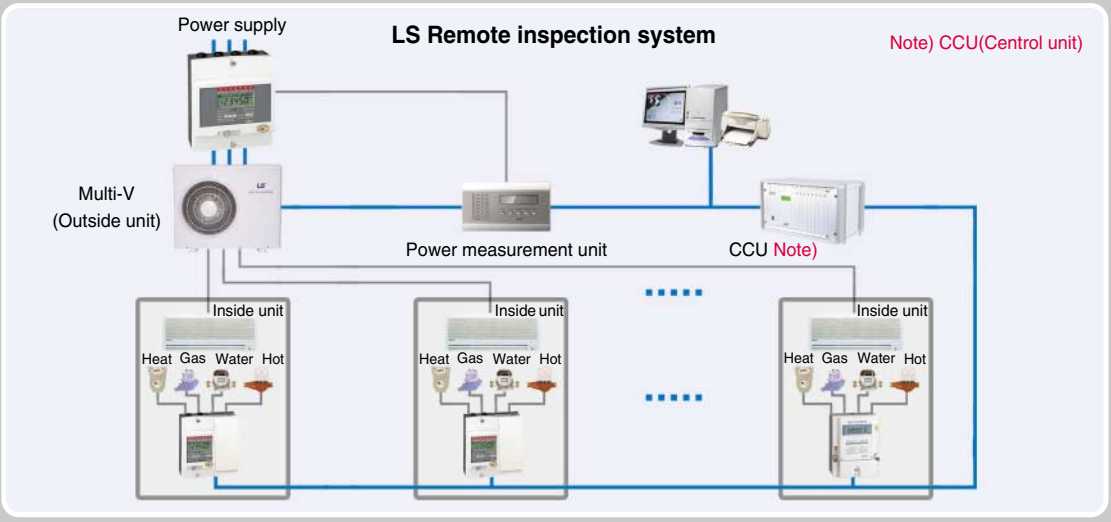
LD series

It is possible to do a remote inspection of meters of electricity, gas, water, heat capacity, airconditioned value by RS-485 communication.

LGRW series

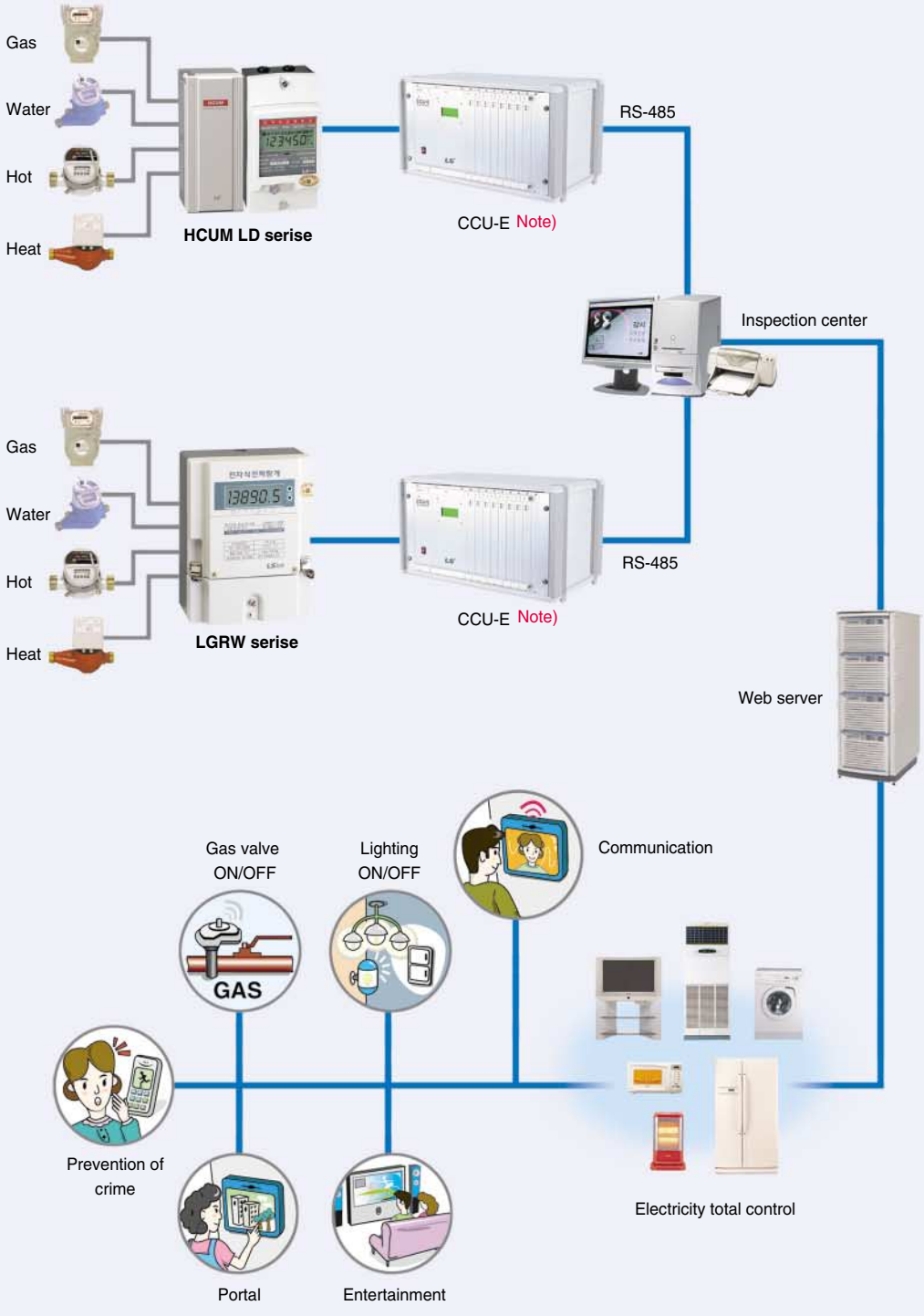
- Communication : RS-485
- Remote inspection integrated type(LGRW) is possible to inspect (gas, water, hot water,heat capacity, air conditioned) automatic

Multi air-condition system



Home network system

LS Remote inspection system



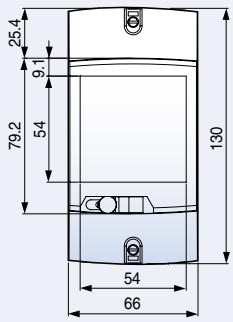
Note) CCU(Central Control Unit)

LD Series Ratings / Dimensions

Single phase 40A

■ Up/Down type

Type		LD1210DR-040(U/L)
Circuit Sys.		1P2W
Current(A)		40(10)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		1000
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



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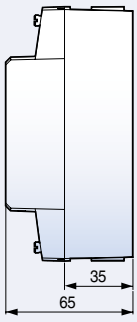
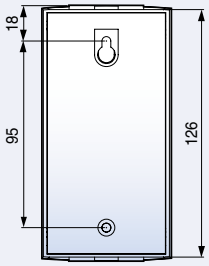
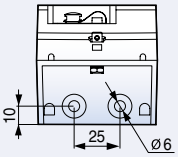


Side



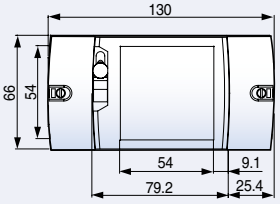
Rear



Bottom

■ Left/Right type

Type		LD1210DR-040(L/R)
Circuit Sys.		1P2W
Current(A)		40(10)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		1000
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



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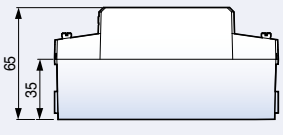

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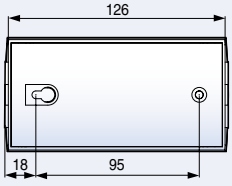

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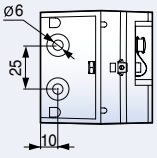
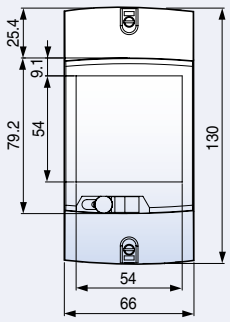


Side

Single phase 80A

■ Up/Down type

Type		LD1210DR-080(U/L)
Circuit Sys.		1P2W
Current(A)		80(20)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		500
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



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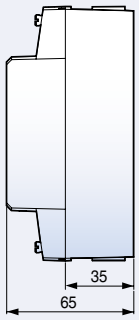

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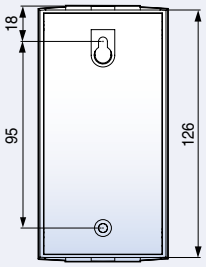

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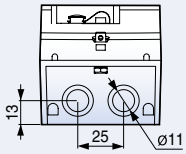
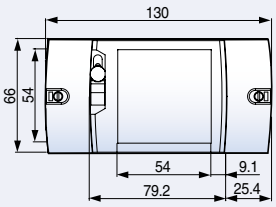


Bottom

■ Left/Right type

Type		LD1210DR-080(L/R)
Circuit Sys.		1P2W
Current(A)		80(20)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		500
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



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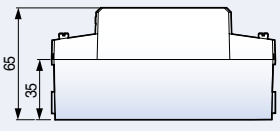

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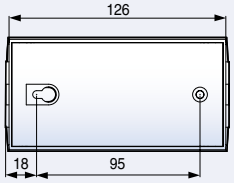

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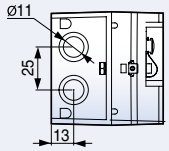


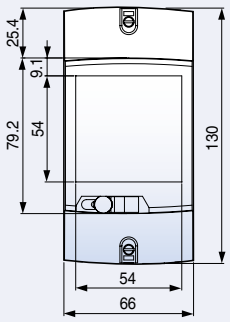
Side

LD Series Ratings / Dimensions

Single phase 120A

■ Up/Down type

Type		LD1210DR-120(U/L)
Circuit Sys.		1P2W
Current(A)		120(30)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		250
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



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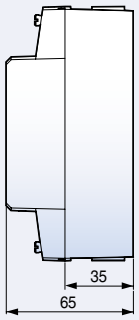

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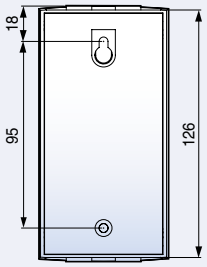
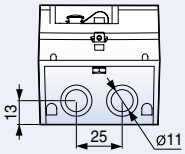


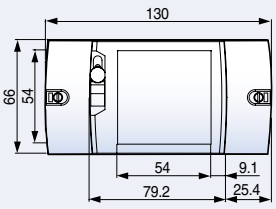
Rear



Bottom

■ Left/Right type

Type		LD1210DR-120(L/R)
Circuit Sys.		1P2W
Current(A)		120(30)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		250
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



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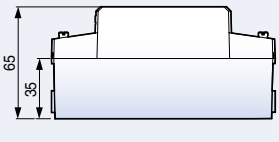
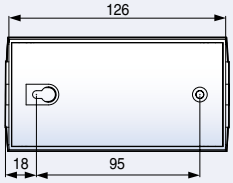
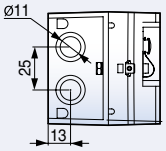


Top



Rear

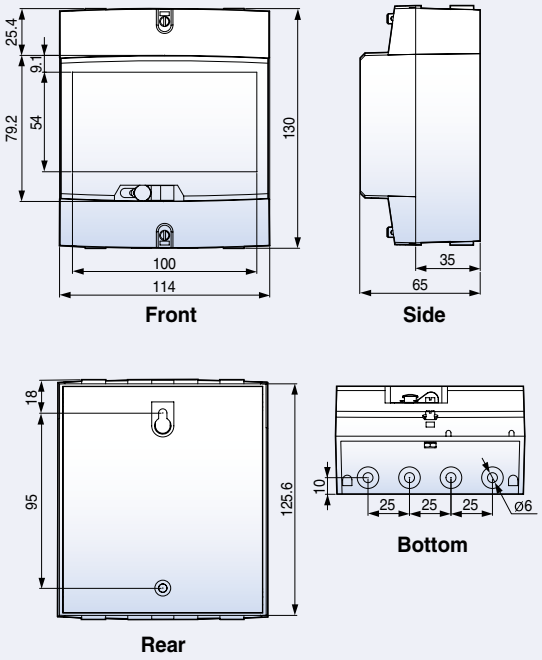


Side

3phase 4wiring 40A

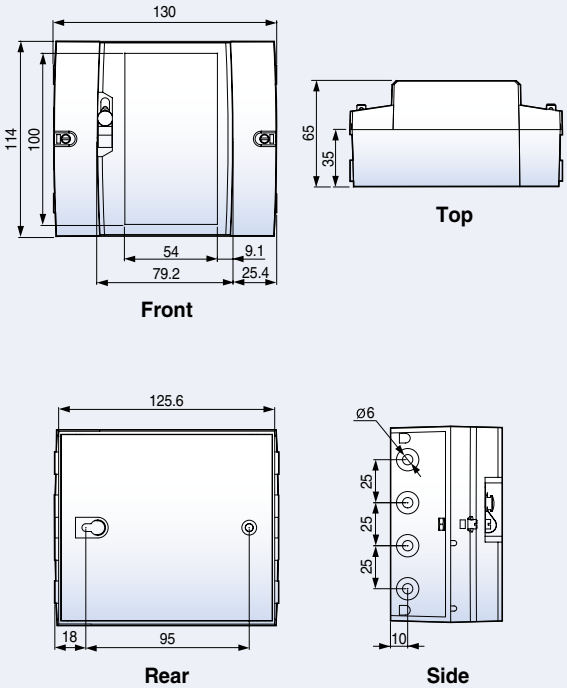
■ Up/Down type

Type		LD3410DR-040(U/L)
Circuit Sys.		3P4W
Current(A)		40(10)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		500
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



■ Left/Right type

Type		LD3410DR-040(L/R)
Circuit Sys.		3P4W
Current(A)		40(10)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		500
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection

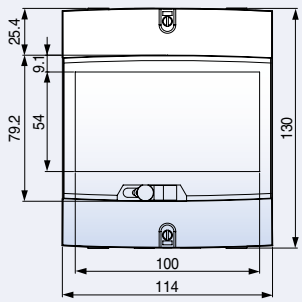


LD Series Ratings / Dimensions

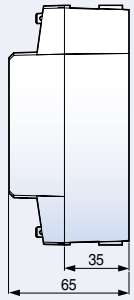
3phase 4wiring 120A

■ Up/Down type

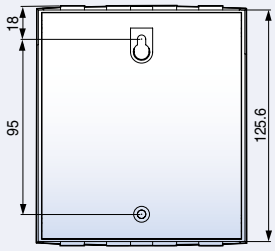
Type		LD3410DR-120(U/L)
Circuit Sys.		3P4W
Current(A)		120(30)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		125
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



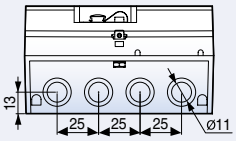
Front



Side



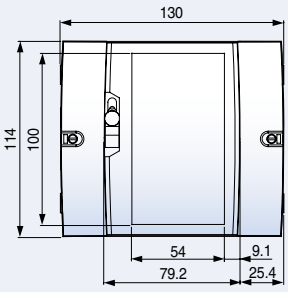
Rear



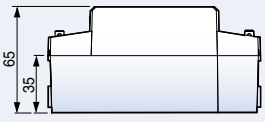
Bottom

■ Left/Right type

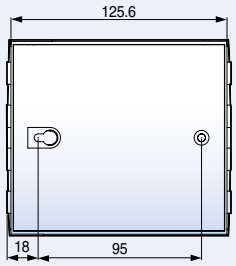
Type		LD3410DR-120(L/R)
Circuit Sys.		3P4W
Current(A)		120(30)
Voltage(V)		220V, 50Hz/60Hz
Pulse/kWh		125
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



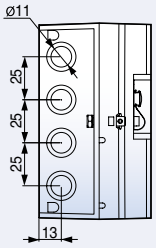
Front



Top



Rear



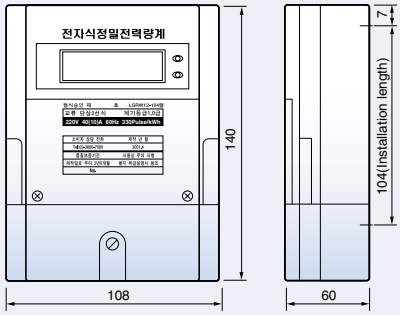
Side

LGRW Series Ratings / Dimensions

Single phase 2 wiring

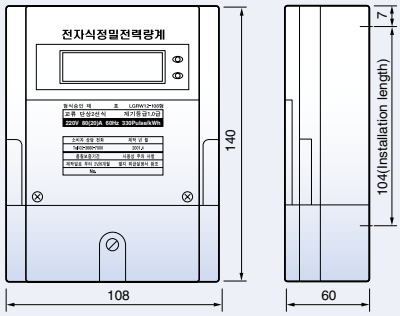
LGRW12-104

Type		LGRW12-104
Circuit Sys.		1P2W
Current(A)		40(10)A
Voltage(V)		AC 220V, 50Hz/60Hz
Pulse/kWh		1000
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



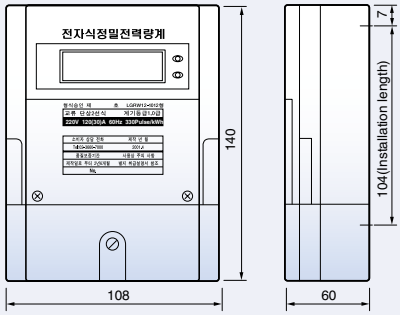
LGRW12-108

Type		LGRW12-108
Circuit Sys.		1P2W
Current(A)		80(20)A
Voltage(V)		AC 220V, 50Hz/60Hz
Pulse/kWh		500
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



LGRW12-1012

Type		LGRW12-1012
Circuit Sys.		1P2W
Current(A)		120(30)A
Voltage(V)		AC 220V, 50Hz/60Hz
Pulse/kWh		330
Accuracy		1.0
Option	S	Standard
	P	Pulse type
	R	Remote inspection



Ratings and specification

■ LD serise rating

Type	Model				
	LD1210DR-040	LD1210DR-080	LD1210DR-120	LD3410DR-040	LD3410DR-120
Rated voltage(V)	220V, 50Hz/60Hz			220/380V, 50Hz/60Hz	
Rated current(A)	40(10)A	80(20)A	120(30)A	40(10)A	120(30)A
Accuracy	Class 1.0, ± 1%				
Pulse/kWh	1000	500	250	500	125
External output pulse Note)	1pulse=1W	1pulse=10W	1pulse=100W	1pulse=2W	1pulse=8W
Power(W)	Under 2W				
Weight	407.5	502.6	502.6	650	850
Dimension	66×130×65	66×130×65	66×130×65	114×130×65	114×130×65
Material	Base : Phenolic resin(Black), Cover : Polycarbonate(White)				
Temperature, Humidity	Temperature : -20℃~55℃, Humidity : 95%				
Protection against dust, water insertion	IEC 60529 standard IP51				
Internal force against heat, fire	Terminal cover or case : 650℃±10℃, Terminal box : 960℃±15℃				
Internal structure	Unit for inside type				

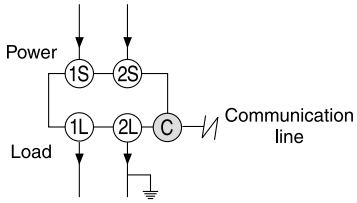
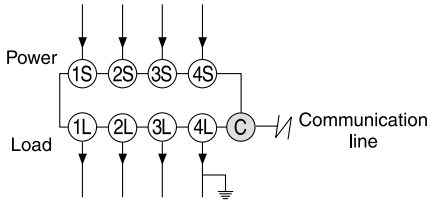
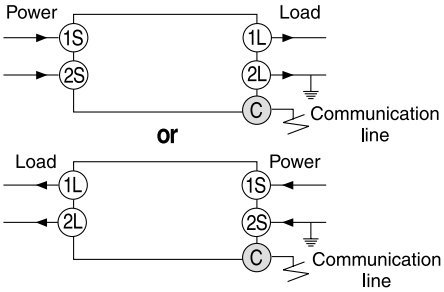
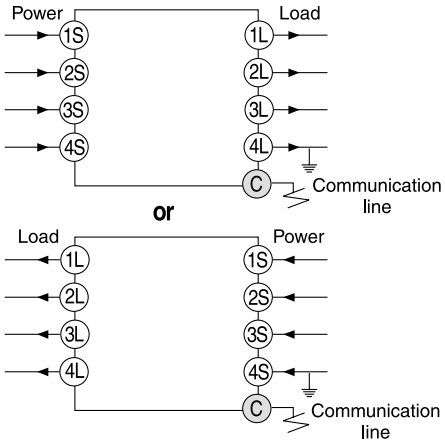
Note) Consider in case of system air-conditioning Remote inspection application and some other external application.

■ LGRW serise rating

Type	Model		
	LGRW12-104	LGRW12-108	LGRW12-1012
Elec. Type	1P2W		
Rated voltage(V)	220V, 50Hz/60Hz		
Rated current(A)	40(10)A	80(20)A	120(30)A
Accuracy	Class 1.0		
Pulse/kWh	1000	500	330
LCD Demension	48×16mm(W×H), 6 Digit		
Temperature, Humidity	-20℃~55℃(Operating), -25℃~70℃(Storage), Humidity under 95%		
Dimension	108(W)×140(H)×60(D)mm		
Weight	580	800	800
Teminal hole diameter	6	11	11
Option	S : Standard, P : Pulse, R : Remote inspection		

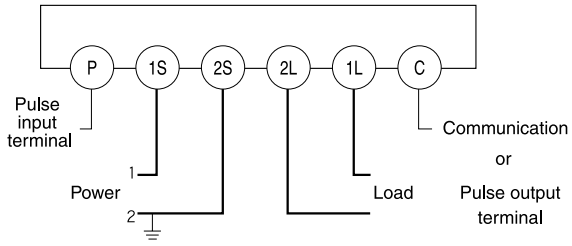
Diagram

■ LD serise

	1P2W	3P4W
Up/Down type		
Left/Right type (Users need consider about exchanging between power supply and load.)		

■ LGRW series

1P2W
40/80/120A



Memo

Memo

Leader in Electrics & Automation

Safety Instructions

- For your safety, please read user's manual thoroughly before operating.
- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact qualified service technician when you need maintenance.
  Do not disassemble or repair by yourself!
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.

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Specifications in this catalog are subject to change without notice due to continuous product development and improvement.

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